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In the Claims

Please amend the claims pursuant to the provisions of proposed new rule 121 as described in the Official Gazette on February 25, 2003, as follows:

Please cancel claims 1-25 without prejudice to applicants' right to pursue the subject matter of these claims in this or related application.

1-25. (Canceled).

- 26. (New) A transgenic plant comprising an increased level of epoxy fatty acid in the lipid of its seed relative to the level of the epoxy fatty acid in the seed of the transgenic plant prior to transformation, wherein the epoxy fatty acid is 12,13-epoxy-9-octadecenoic acid, 12,13-epoxy-9,15-octadecadienoic acid, or a mixture of both.
- 27. (New) The transgenic plant of claim 26, wherein the level of 12,13-epoxy-9-octadecenoic acid is greater than 0.7% (w/w) of total seed fatty acid content.
- 28. (New) The transgenic plant of claim 26, wherein the level of 12,13-epoxy-9-octadecenoic acid is from 0.9% to 15.8% (w/w) of total seed fatty acid content.
- 29. (New) The transgenic plant of claim 26, wherein the epoxy fatty acid is 12,13-epoxy-9,15-octadecadienoic acid.

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- 30. (New) The transgenic plant of claim 26, wherein the transgenic plant has been transformed with a nucleic acid encoding a plant fatty acid Δ -12 epoxygenase.
- 31. (New) The transgenic plant of claim 26, wherein the plant is Arabidopsis thaliana, flax, oilseed rape, sunflower, corn, safflower, soybean, linseed, sesame, cottonseed, peanut, olive or oil palm.
- 32. (New) The transgenic plant of claim 26, wherein the plant is flax, sunflower, corn, or safflower.
- 33. (New) The transgenic plant of claim 31, wherein the plant is flax and the flax is Linum usitassimum.
- 34. (New) The transgenic plant of claim 31, wherein the plant is a flax plant containing less than 2% linolenic acid.
- 35. (New) A transgenic seed of the plant of claim 26.
- 36. (New) A transgenic seed of the plant of claim 27.
- 37. (New) A transgenic seed of the plant of claim 29.
- 38. (New) A transgenic seed of the plant of claim 31.
- 39. (New) A transgenic seed of the plant of claim 32.
- 40. (New) A transgenic seed of the plant of claim 33.

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41. (New) A process for producing the transgenic plant of claim 26 comprising

- a) transforming a cell or tissue of a plant with a nucleic acid encoding a plant fatty acid α -12 epoxygenase under the control of a seed-specific promoter; and
- b) regenerating the transformed cell or tissue to produce the transgenic plant.
- 42. (New) The process of claim 41, wherein the plant is Arabidopsis thaliana, flax, oilseed rape, sunflower, safflower, soybean, linseed, sesame, cottonseed, peanut, olive or oil palm.
- 43. (New) The transgenic plant of claim 41, wherein the plant is flax, sunflower, corn, or safflower.
- 44. (New) A process for producing 12,13-epoxy-9-octadecenoic acid or 12,13-epoxy-9,15-octadecadienoic acid comprising
 - a) obtaining the plant of claim 26;
 - b) separating the seed from the plant; and
 - c) extracting lipid comprising 12,13-epoxy-9-octadecenoic acid or 12,13-epoxy-9,15-octadecadienoic acid from the seed,

thereby producing 12,13-epoxy-9-octadecenoic acid or 12,13-epoxy-9,15-octadecadienoic acid.

45. (New) The process of claim 44, wherein the plant is Arabidopsis thaliana, flax, oilseed rape, sunflower, safflower, soybean, linseed, sesame, cottonseed, peanut, olive and oil palm.

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46. (New) The transgenic plant of claim 44, wherein the plant is flax, sunflower, corn, or safflower.

- 47. (New) A process for producing 12,13-epoxy-9-octadecenoic acid or 12,13-epoxy-9,15-octadecadienoic acid comprising
 - a) obtaining the seed of claim 35; and
 - b) extracting lipid 12,13-epoxy-9-octadecenoic acid or 12,13-epoxy-9,15-octadecadienoic acid from the seed, thereby producing 12,13-epoxy-9-octadecenoic acid or 12,13-epoxy-9,15-octadecadienoic acid.
- 48. (New) The process of claim 47, wherein the seed is from Arabidopsis thaliana, flax, oilseed rape, sunflower, safflower, soybean, linseed, sesame, cottonseed, peanut, olive or oil palm.
- 49. (New) The transgenic plant of claim 47, wherein the seed is from flax, sunflower, corn, or safflower.